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ON THE ANCIENT PERUVIANS.

By Dr J. J. DE TSCHUDI.

[Read before the Society, 1844.]

During a stay of five years in Peru, spent for the most part in the interior of that remarkable country, I devoted as much of my time as I could spare from my studies in Natural History to the investigation of the condition, past and present, of the aboriginal inhabitants. In the course of these researches I collected many facts connected with their history and manners. I have thoroughly examined more than eighty ruins of Indian villages, with, perhaps, half that number of tombs. I have seen and described many of their relics, and have brought to Europe ten mummies of different ages and sexes (six others are still expected); and more than thirty skulls of Indians are lying before me, the most beautiful collection that has ever been obtained from that part of America.

I shall, probably, at some other time have the pleasure of bringing before the Ethnological Society my researches on the great migrations of the nations of the northern division of the New World, together with my views on the different tribes and races: for the present I shall communicate a few general remarks only.

The greater part of the old Indian villages in the Sierras of Peru, are situated on steril heights, conical turreted hills, summits of mountains or narrow ridges, and on an eastern exposure. The choice of this latter situation was determined by their religion. It was, in fact, natural that the Indians, who considered their kings to be the offspring of the sun, which they adored as their primary divinity, should have chosen, for the sites of their towns and villages, positions from which they could see and adore the god at his first appearance above the horizon. To this practice, which in some provinces was very rigidly followed, they sacrificed much of their comfort, as they were not only exposed to violent and icy winds, but also found themselves on points totally deprived of water, which, in some

cases, had therefore to be brought from a distance of two or three miles. This explains why we find in certain ruins of Indian villages, especially such as are situated at a distance from springs or brooks, so great a number of water-pots of all sizes, forms, and materials. In these pots the indispensable fluid was fetched from a distance on the backs of Llamas. I found the same custom still subsisting among the Indians.

In all large villages, where the ground permitted, a great central square was formed, from which very regular streets frequently branched off in all directions. The structure of the houses is extremely varied. Close to the largest palaces, having from twenty to twenty-five windows in front, are the smallest, narrowest, and poorest cottages. Stones and cement are almost everywhere the usual building material; but near the coast, on the western side of the Cordilleras, larger edifices of bricks are found, and called by the Indians *Ticacuna*.

In the districts of Tunin and Ayacucho, I have seen large villages consisting of tower-like buildings of a very peculiar structure. Every house is round or quadrangular, the inner diameter being about 6 feet. The walls are from 18 inches to 2 feet thick, and the height of the whole building seldom exceeds 20 feet. The entrance opens towards the east or the south, and is, at the utmost, 2 feet high. Having crawled in, we find ourselves in a space of about 6 feet across, and of equal height. The walls are rude and bare, but in them are deep holes, which must once have served as cupboards, as we still find in them very frequently maize, corn, small pots, &c. No window enlightens the space. The roofs of these rooms consist of several horizontal immured flagstones, which, in the middle, do not touch each other, but leave an open space about one foot and a half broad. By this opening we may ascend, and arrive, not without difficulty, at the second story, which is built in the same manner, but has generally some openings instead of windows. The roof is the same as the lower one, and through it we come to the upper story, the roof of which forms that of the whole house, and consists of very solid masonry. The upper story is generally lower than the other, and probably served as a store-room. I once, however, found in it the well-preserved mummy of a child. The

family lived on the ground-floor. We can distinguish very clearly the place where they used to cook. The one immediately above was the sleeping-room ; a great flagstone is often found in it, which served to cover the opening. The old Indian fortification Hincay is of entirely similar structure, though on a grander scale. I have felt very comfortable in these small and narrow dwellings ; they frequently protected me for hours from violent rain, after I had expelled a fox or a zorillo from them.

I have often found in these houses the best preserved mummies and other antiquities. Only a small part of the dead were buried in tombs of masonry, in the so-called Huaca, or more correctly Aya-huaci (Dead house). Near the coast the bodies were laid, many together, in certain places in the sand ; in the mountains, however, in caves, in fissures of the rocks, or in their own houses. When the last was the case, I observed the following arrangement. Immediately below the surface, and only covered with a thin stratum of earth, the bodies are placed, more or less preserved, mostly, but not always, in a sitting posture. The head, in this case, is supported by the hands, the elbows by the thighs, and all the fingers of each hand are tied together with a string, which, running across the neck, connects both hands.

If we remove the bodies and clear away the second stratum of earth, we arrive at the domestic implements of the Indians, cooking and water-pots of clay, calabayos, huallecas, implements of war and hunting. Below this stratum there followed the third and last, which contain the gods ; they are mostly made of clay, but sometimes also of silver and gold ; such idols have been found in different places, which contained from twenty-five to thirty pounds of the finest gold.

On the eastern side of the Cordilleras, large huacas are very scarce ; but they are frequently met with in the coast districts of Peru. The mummies deposited in the fissures of rocks cannot often be removed without extraordinary difficulty ; and it appears incomprehensible how the dead bodies, with all their muscles attached, could be forced into them. Most curious groups of mummies are found, which strongly excite our curiosity. One of the most interesting was dis-

covered in the fortification Huickay mentioned above:—A woman in the act of delivery, in a sitting posture, presses with her knees forcibly against the back of a man, who is squatting before her, and keeps hold of his shoulders with her hands spasmodically contracted; the head of the child is already born, but the trunk and extremities are still in the generation of the mother. I intended to have sent this peculiar group to Europe, but in my absence it was destroyed by the brutality of a European. I found another group in which a child kept firmly hold of the nipple of the mother. Together with the mummies are frequently discovered skulls and skeletons of animals, especially of the mammiferous genera, *canis*,* *felis* (*Felis onca*, and *concolor*), *lutra*, *mephitis*, *lagidium*, *anchenia*; of birds, condors, owls, *ramphastidæ*, *prittaciæ*. With the mummies of children, which I dug out in the Palace of Tarmotambo, I found the specimens of a species of *Arara*, not natives of Peru, but only of the northern parts of South America. Of reptiles, the tortoise is the only one which was buried with the dead. I have never observed any remains either of Saurians or Ophidians.

Regarding the skulls, I will here only mention one very singular peculiarity. In the children of that part of the primitive inhabitants of Western South America, who were distinguished by a flattened occiput, a bone is found between the two parietal bones, below the lambdoidal suture, separating the latter from the inferior margin of the squamous part of the occiput. This bone is of a triangular shape—its upper angle lies between the ossaparietalia, and its horizontal diameter is twice that of its vertical. It coalesces at very different periods with the occipital bones, sometimes in the first month after birth, and sometimes not until after six or seven years. In one skull belonging to a child about seven years old, with a very flat occiput, this line is separated by the most perfect suture from the squamous part of the occiput, and is 4 inches broad and 2 inches high. In a more advanced age,

* I hope to shew in the second number of my *Fauna Peruviana*, that the dog, *canis familiaris*, was indigenous to Peru, and not introduced by the Spaniards.

it probably completely integrates with the rest of the skull. I have, however, perceived it in all the skulls of this class which I have examined. On a close scrutiny, we generally find traces of it in the *linea semicircularis superior*.

This bone, which, in remembrance of the nation in which it is found, I call *Os Incaë*, corresponds entirely to the *Os interparietalia* of the *Rodentia* and *Marsupialia*. We know that it exists in these classes of *mammalia* through life—that it also occurs in the foetal state of several *pachydermata*, *ruminantia*, *carnivora*, &c. In the ordinary embryos of man, there are barely some traces in the first months, which, however, soon disappear. I think it, therefore, very curious that we should find so retarded a formation in a whole race of men, who have exhibited a very inferior degree of the intellectual faculties.

I have just heard that Mr Bellamy, in a paper on Peruvian Mummies, read before the British Association on the 3d of August 1841, and printed in the *Annals and Magazine of Natural History*, October 1842, has already pointed out this peculiarity in the osseous structure, and I am much pleased to confirm his observations by the examination of more than a hundred of such skulls.

I may, however, observe, that Mr Bellamy certainly did not obtain his mummy from the high plains of Peru, as in those districts there occurs no drift sand strongly impregnated with salt. In those plains the mummies are not found in any quantity at a short distance below the surface; and, lastly, Captain Banckley, who could obtain any quantity of mummies at Arica, or some other seaport town, would certainly not have taken the trouble of fetching them from the high plains. Dr Bellamy is also too hasty in determining the race of the nation to which these skulls belonged, especially if he ascribe them to that nation, which is said to descend from Asiatics, who emigrated with Manco Capac.

I transmit to the Society the drawing of a skull, which I dug out of the old Indian fortification Thrickay. It belongs to one of the three typical races of the former inhabitants of Peru, and is not to be confounded with those figured by D'Orbigny under the denomination of Aymara.

In the hope of throwing some new light on the question in dispute between Dr de Tschudi and Mr Bellamy, Dr King entered into correspondence with the latter gentleman, which drew forth this reply. "In the very rough communication which I had the honour of making to the British Association, I confined myself as much as possible to facts, just venturing enough, in the way of opinion, to draw on discussion. I am delighted that the time is at length arrived, for something favourable to science must be the result. My knowledge, however, is far too limited to permit of my joining in any argument that may be advanced; all I can do, is to take care that no misstatement is made of what I have made public.

"It has been, and I fear always will be, my misfortune to write from my own fireside, for my avocations have, and probably ever will, keep me at home. I have little or no geographical knowledge of Peru, and of its minute physical characters I know less. Dr de Tschudi, I presume, from the boldness of his assertions, is a traveller, and that he has visited the part of the world in question. Hence, doubtless, he is correct, when he says that the mummy was not brought from the high plains of Peru, for the reasons he gives appear to be too forcible to admit of any doubt. We have, in fact, from him what looks very much like personal observation, for he says, 'in those districts there occurs no drift-sand,' &c.

"Captain Blanckley, from whom the mummies were procured, some little time after they fell under my notice, went abroad, and I have in vain several times since endeavoured to communicate with him. In my paper I have said, after regretting my inability to furnish information of a more correct character, that he 'stated to me in conversation, that he exhumed them himself from an elevated part of land in the mountainous district of Peru, but at a considerable distance from the lake Titicaca.' Now, all one can remark upon the different statements of the Doctor and Captain Blanckley is simply this, that the 'elevated tract of land' of the latter is not included geographically in 'the high plains' of the former; and as Captain Blanckley has added, that the spot where he exhumed them is at a considerable distance from the lake Titicaca, it is fair to presume that his discovery refers to some

locality nearer the sea ; an opinion which I should consider to be correct, as he was only a casual explorer, not able to venture far from the ship of which he had the command.

“ Dr de Tschudi considers that I have been ‘ too hasty in determining the race of the nation to which the skull belonged.’ All I have said upon that question is as follows :—‘ This peculiar race were in all probability the aborigines of the country, and it is probable that these mummies may be the relics of some of the last of the Titicacans ;’ so that it must be observed that I have not determined—I have but suggested, and the question is left entirely open for the more competent to argue.

“ In the last place, Dr de Tschudi alludes to the mixed race, recently from the intermixture of the aborigines with the followers of Manco Capac, as if I had referred the mummies to them or their descendants. In this he has completely misunderstood me, as will be apparent from what I have just stated, and from this which I now quote from my original papers :—‘ I would suggest that the adult skulls of Titicacans, in the Museum of the Royal College of Surgeons, are of this kind, the one possessing all the peculiarities of the race in its unalloyed form—the true Titicacan ; and the other being of a spurious character, resulting from the union of the indiginæ with the settlers of Asiatic origin, the companions of Manco Capac of traditionary fame.’ ”